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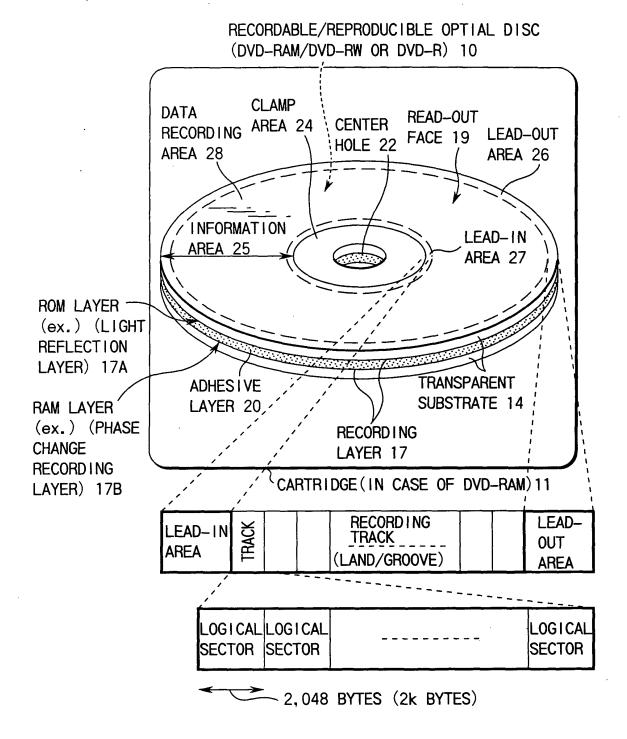


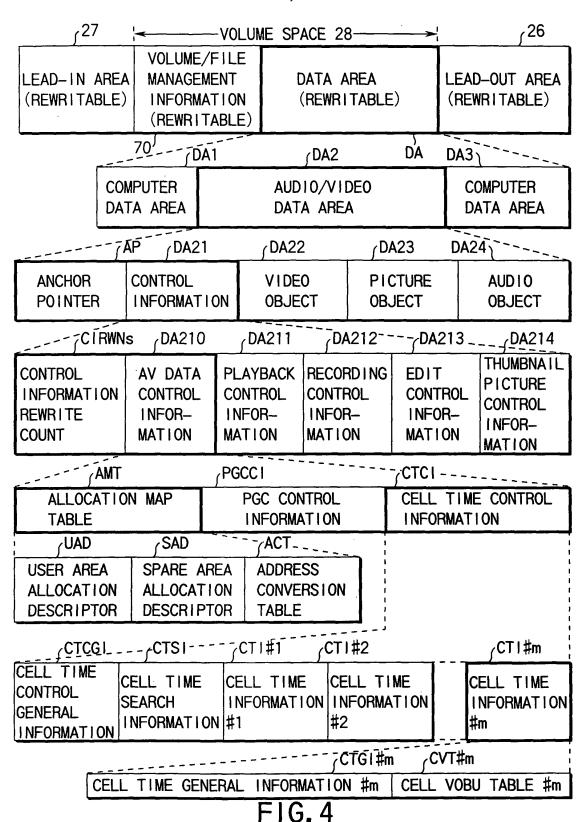
FIG. 1

ONE SECTOR (PHYSICAL SECTOR)							
PREVIOUS SECTOR	HEADER (EMBOSS)	SYNCHRO- NIZATION CODE	MODU- LATED SIGNAL		SYNCHRO- NIZATION CODE	MODU- LATED SIGNAL	HEADER OF NEXT SECTOR

FIG. 2

	(CLU		16 SECT	 <u>≻</u> kB)	
SECTOR	SECTOR	SECTOR	SECTOR	 SECTOR	SECTOR
501s	501a	501b	501c	501p	501q

FIG.3



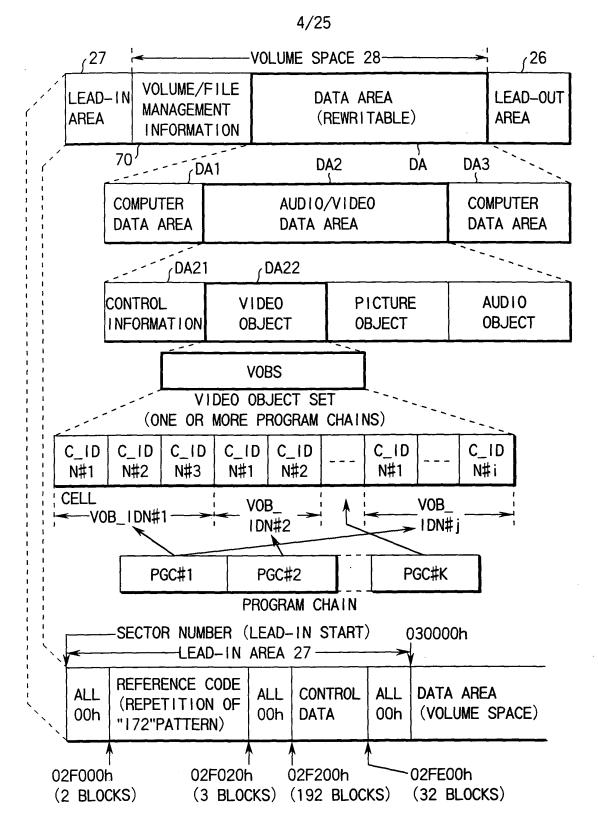


FIG.5

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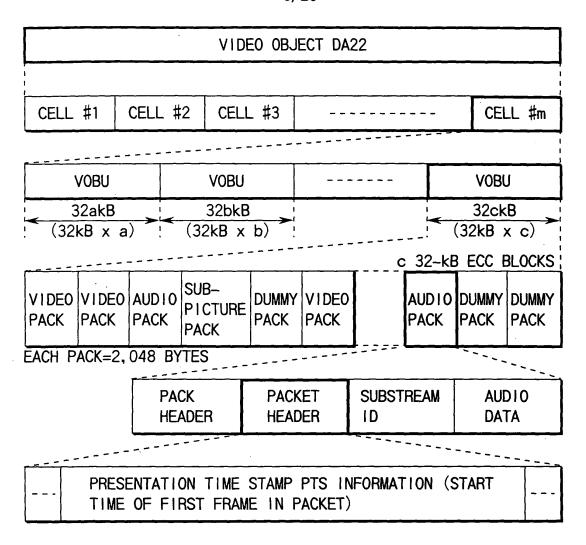


FIG.6

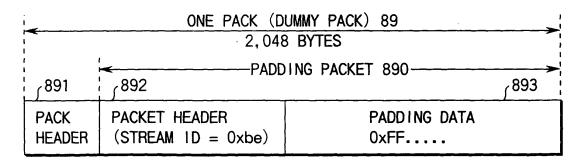


FIG.7

1101112	UMBER OF ICTURES N VOBU#2	NUMBE PICTU IN VO	RES	NUMBER PICTURI IN VOB	ES	NUMBER OF PICTURES IN VOBU#n	
				· -			
CELL TIME CE DURA-DA	MBER CELL DATA LL SET TA DESC	CELL TIME PHYSICA	NUMB OF CONS TUEN VOBU	TIM TI- COD TAE		ACQUI – RED DEFECT	
<pre><remarks> SET IS ALSO REFERRED TO AS EXTENT</remarks></pre>							
CELL DATA GENERAL INFOR- MATION	GENERAL CODE DEFECT VIDEO AUDIO PICTU						
CELL TIME IN	NFORMATIO	N CTI#m		===			
CELL TIME GE	ENERAL IN	FORMATION	#m	CELL VO	BU TABL	E #m	
VOBU VOBU VOBU INFORMATION INFORMATION #1 #2							
	U GENERAL ORMATION	DUMMY			IO ICHRONIZA ORMATION		

FIG.8

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CORRESPONDING	INFORMATION	LNEODMATION	MINDED OF
INFORMATION	NAME	INFORMATION CONTENTS	NUMBER OF
			BYTES USED
VOBU GENERAL	I-PICTURE	DIFFERENTIAL ADDRESS VALUE OF	1
INFORMATION	END	I-PICTURE END POSITION FROM	1
2.0.0.	POSITION	VOBU START POSITION	
DUMMY PACK	NUMBER OF	NUMBER OF DUMMY PACKS IN VOBU	1
INFORMATION	DUMMY PACKS		
	DUMMY PACKS	DUMMY PACK INSERTION	2 x DUMMY
	DISTRIBUTION	DIFFERENTIAL ADDRESS FROM START	
		OF VOBU, AND EACH NUMBER OF	NUMBER
	AUDIO OTREAM	DUMMY PACKS (2 BYTES EACH)	
AUDIO	AUDIO STREAM	NUMBER OF CHANNELS OF AUDIO	1
SYNCHRONIZATION		STREAM	
INFORMATION	1-P1CTURE	DIFFERENTIAL ADDRESS VALUE OF	1
	AUDIO	SECTOR INCLUDING AUDIO PACK OF	
	POSITION #1	THE SAME TIME AS I-PICTURE	
		START TIME FROM START OF VOBU (MSB = "0": LOCATED BEFORE	
			1
		VOBU, MSB = "1" : LOCATED AFTER	
		VOBU)	
	I-PICTURE	INDICATE SAMPLE NUMBER OF AUDIO	2
	START_AUDIO	SAMPLE POSITION OF THE SAME	
	SAMPLE	TIME AS I-PICTURE START TIME IN	
	NUMBER #1	SECTOR AS COEFFICIENT OF SERIAL	1
	· · · · · · · · · · · · · · · · · · ·	NUMBERS OF ALL AUDIO PACKS	
	AUDIO	PRESENCE/ABSENCE OF	1
		SYNCHRONIZATION INFORMATION	
	INFORMATION	BETWEEN AUDIO AND VIDEO STREAMS	
	FLAG #1	(NEXT ITEM IS NOT AVAILABLE IF	ŀ
	411010	ABSENT)	
		THE NUMBER OF AUDIO SAMPLES	2
		INCLUDED IN VOBU	[[
	DATA		
			<u> </u>
·	I-PICTURE AUDIO		1
		AUDIO SAMPLE NUMBER #2 める。	2
	AUDIO SYNCHRONIZ	ZATION FLAG #2	`[1]
	AUDIO SYNCHRONIZ	ZATION DATA	2
			

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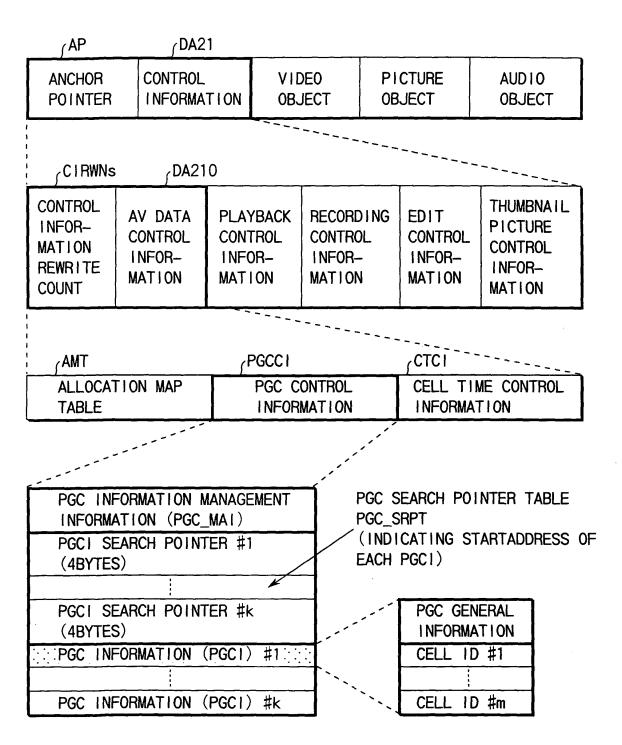


FIG. 10

POSITIONS OF SHIFT PRODUCED BETWEEN ECC BLOCK BOUNDARY AND VOBU BOUNDARY

			—	CE	LL		V			
DATA	CHANG	E AREA	\	V0BU#g				VOBU#	g+1	
ECC BLOCK		ECC BLOCK	í	í	ECC BLOCK	1			ECC BLOCK	

FIG. 11

SHIFT-REMOVED POSITIONS BETWEEN BOUNDARIES OF ECC AND VOBU

			CELL			1				
DATA	CHANGE	AREA	V0BU#g				VOBU#	g+1		
ECC BLOCK	ECC BLOCK		l .		ECC BLOCK			ECC BLOCK	ECC BLOCK	

FIG. 12

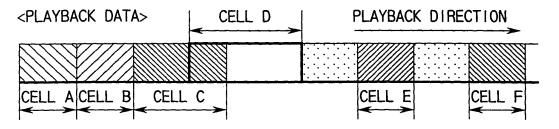


FIG. 13

PGC INFORMATION

PGO	C#1	PGO	C#2	PGC#3		
NUMBER (OF CELLS	NUMBER (OF CELLS	NUMBER OF CELLS = 5		
CELL#1	CELL A	CELL#1	CELL D	CELL#1	CELL E	
CELL#2	CELL B	CELL#2	CELL E	CELL#2	CELL A	
CELL#3	CELL C	CELL#3	CELL F	CELL#3	CELL D	
				CELL#4	CELL B	
			-	CELL#5	CELL E	

FIG. 14

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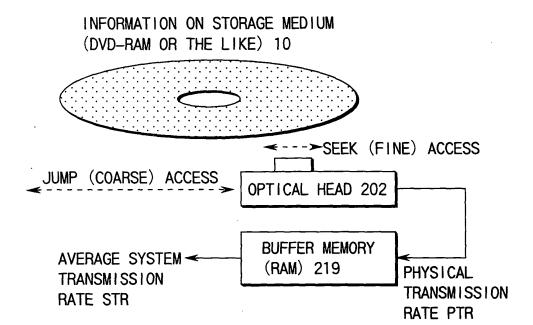


FIG. 15

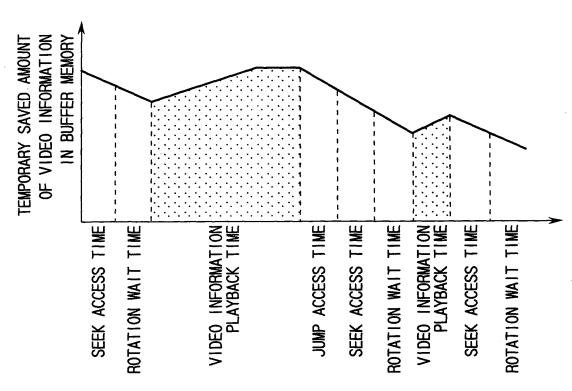
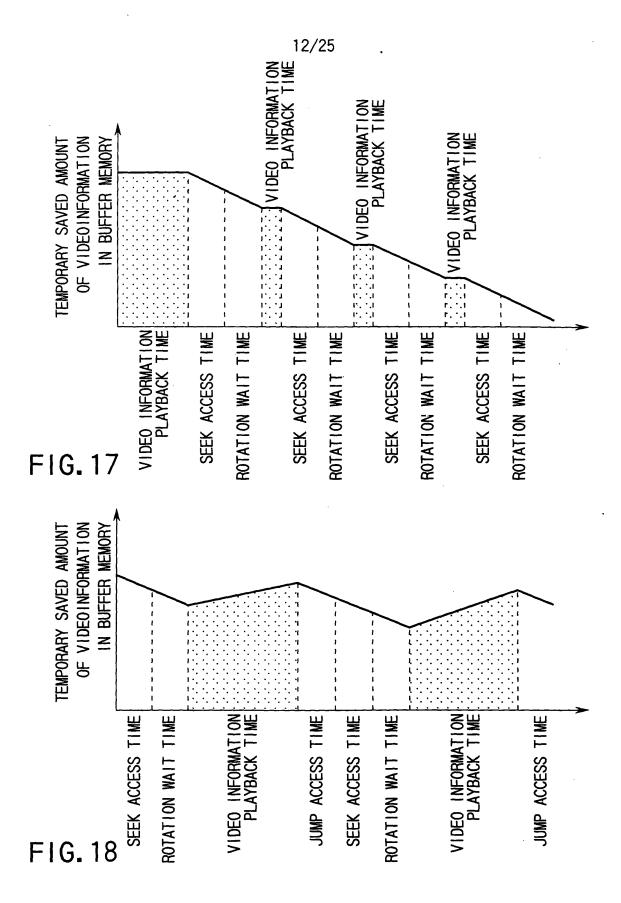


FIG. 16



OBLON, SPIVAK, ET AL DOCKET #:242947US2S DIV INV:Hideo ANDO et al. SHEET 13 OF 25

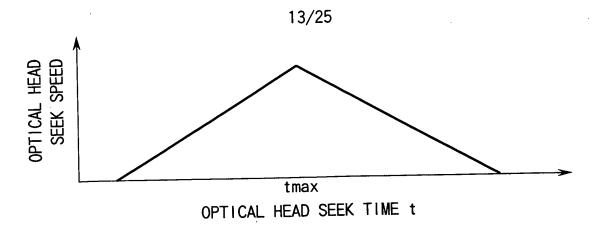


FIG. 19

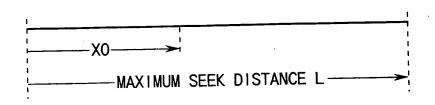


FIG. 20

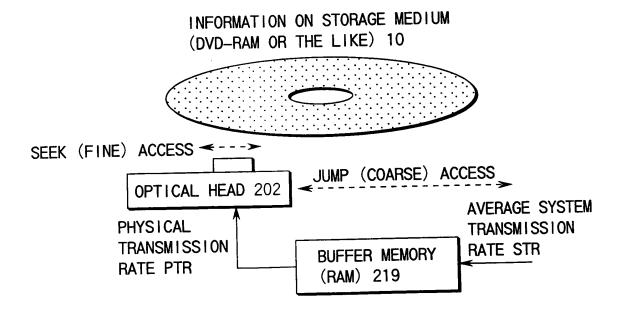


FIG. 21

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FREE AREA 107	С	ELL #	1	CELL #2				CELL #3		
				VOBU VOBU VOBU VOBU 108d 108e 108f 108g						

FIG. 22

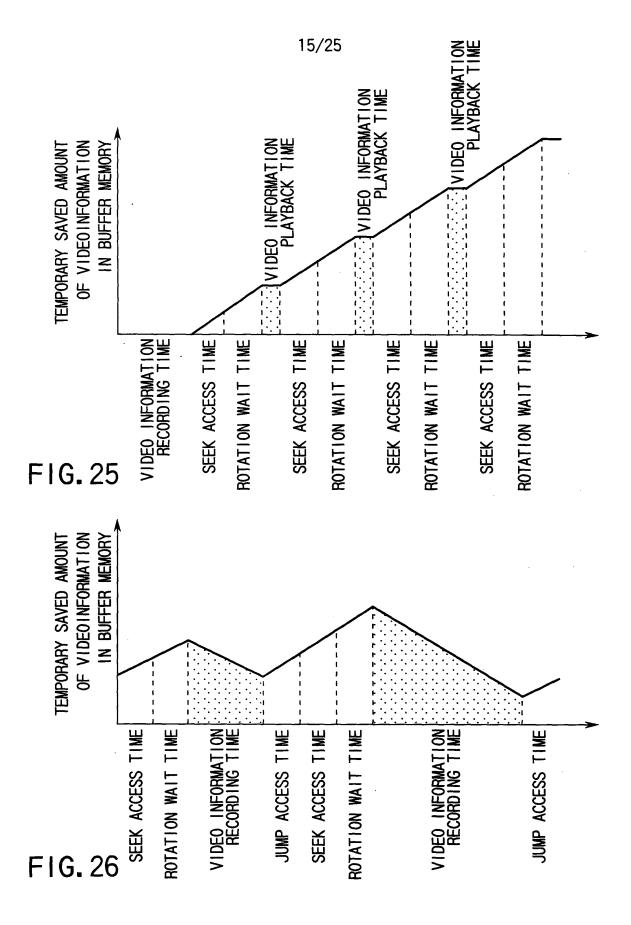
FREE AREA 107	С	ELL #	1	CELL #2A	-	CELL #2B		CELL #3			
	V0BU 108a	V0BU 108b	V0BU 108c	V0BU 108d		0BU 08e	VOBU 108f	V0BU 108g	V0BU 108h	V0BU 108 i	VOBU 108 j

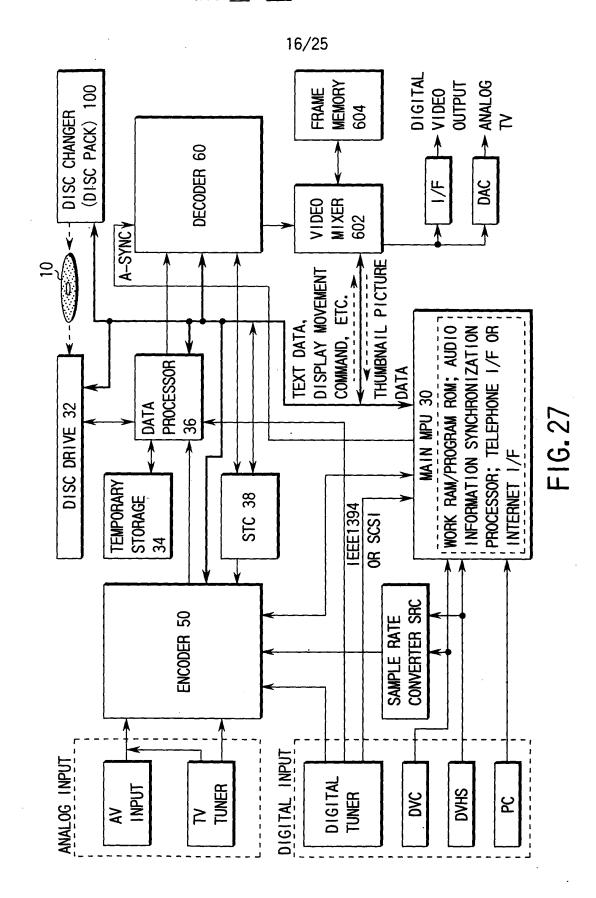
FIG. 23

CELL #2A	CELL #1			CELL	CELL #2B			CELL #3		
VOBU VOBU	V0BU \	V0BU	V0BU	· ·	VOBU	V0BU	V0BU	V0BU	VOBU	V0BU
108d* 108p	108a	108b	108c*		108q	108f	108g	108h	108 i	108 j

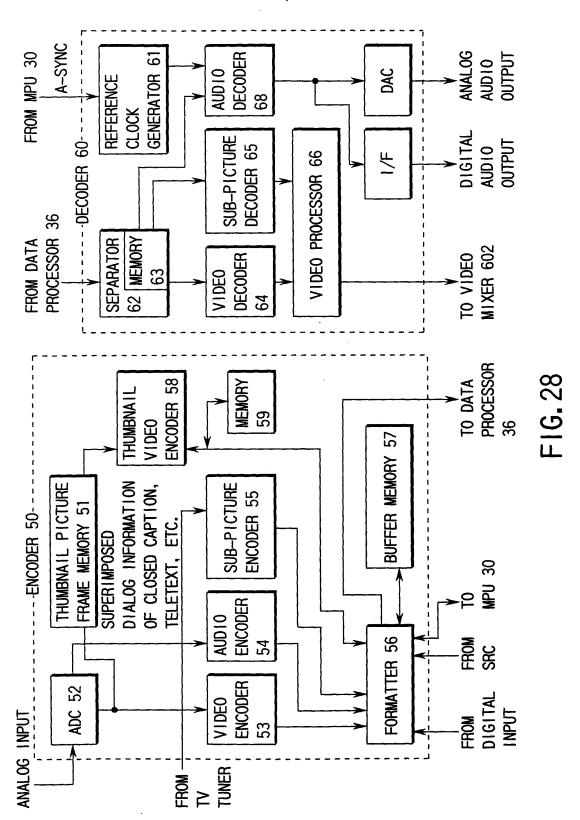
FREE AREA 106

FIG. 24





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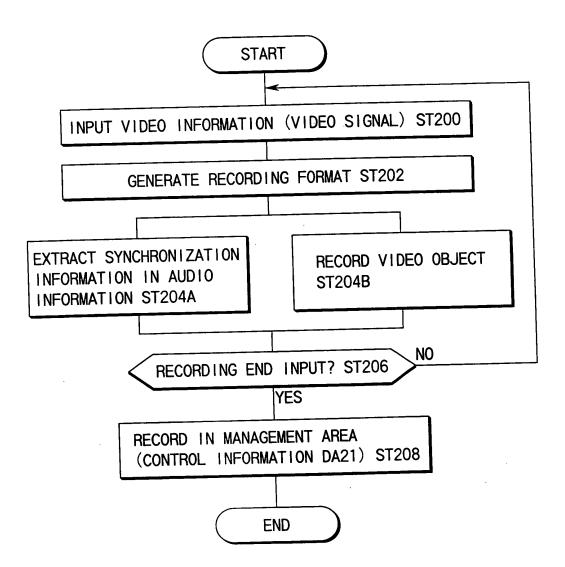
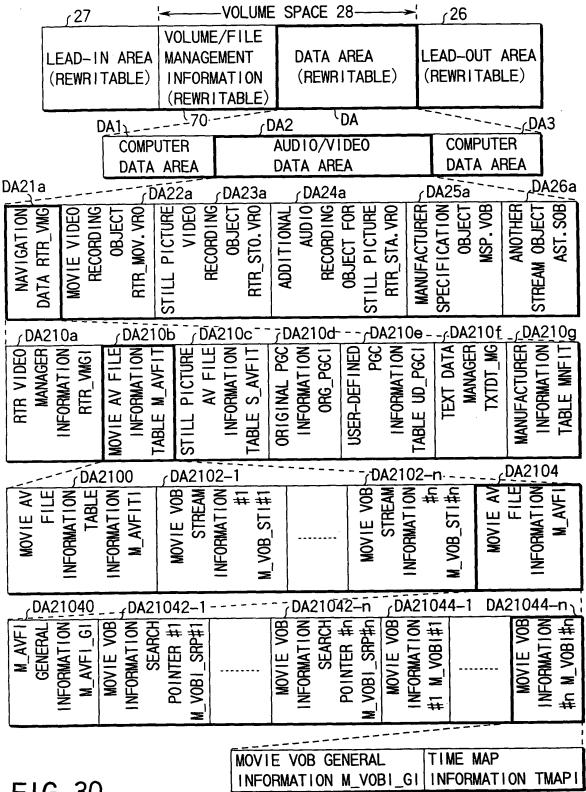


FIG. 29

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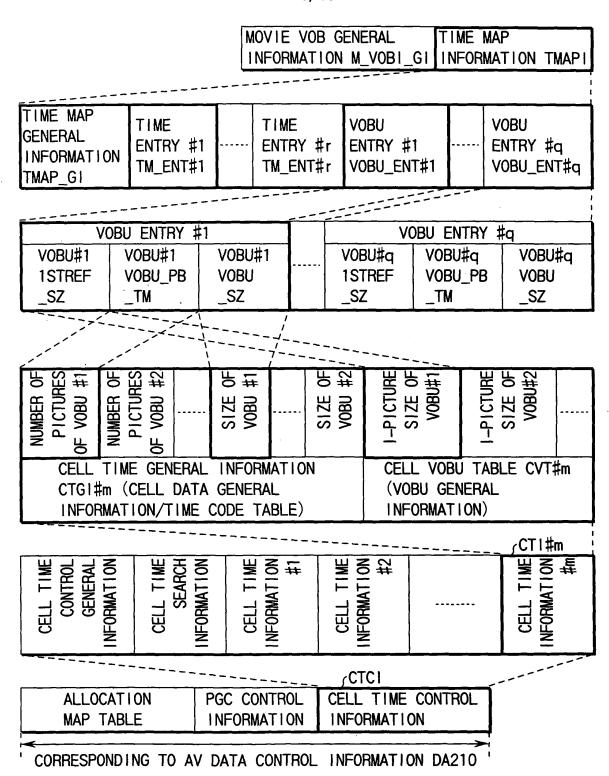


FIG. 31

TIME MAP GENERAL INFORMATION TMAP_GI

RELATIVE BYTE POSITION	FIELD NAME	CONTENTS	NUMBER OF BYTES
0-1	TM_FNT_Ns	NUMBER OF TIME ENTRIES	2
2–3	VOBU_ENT_Ns	NUMBER OF VOBU ENTRIES	2
4–5	TM_OFS	TIME OFFSET	2
6–9	ADR_OFS	ADDRESS OFFSET	4

FIG. 32

TIME ENTRY TM_ENT

RELATIVE BYTE POSITION	FIELD NAME	CONTENTS	NUMBER OF BYTES
0–1	VOBU_ENTN	VOBU ENTRY NUMBER	2
2	TM_DIFF	TIME DIFFERENCE	1
3-6	VOBU_ADR	TARGET VOBU ADDRESS	4

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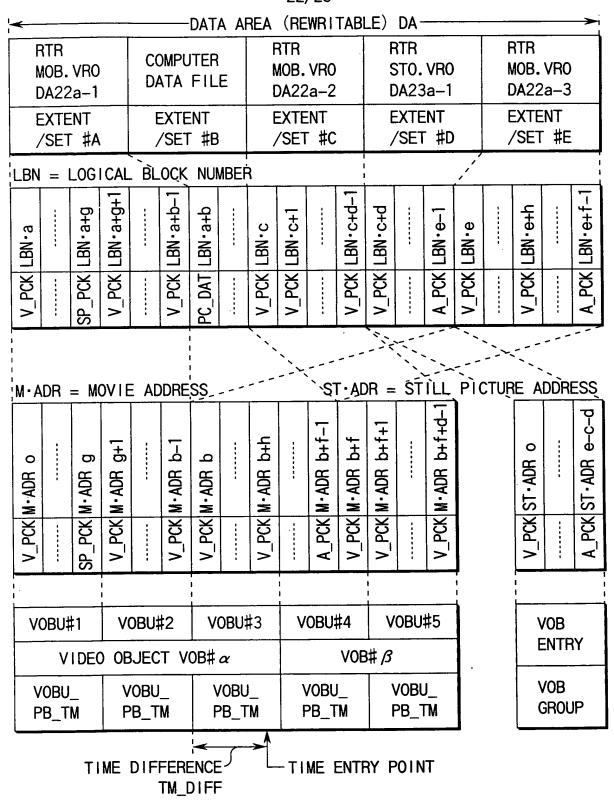


FIG. 34

ROOT DIRECTORY **SUBDIRECTORY** DVD RTR DIRECTORY FILE RTR. IFO (NAVIGATION DATA RTR_VMG) RTR. BUP (BACKUP OF RTR. 1F0) RTR. MOV. VRO (MOVIE VIDEO OBJECT) RTR_STO.VRO (STILL PICTURE VIDEO OBJECT) RTR_STA.VRO (ADDITIONAL AUDIO OBJECT FOR STILL PICTURE) MSP. VOB (MANUFACTURER SPECIFICATION OBJECT) AST. SOB (ANOTHER STREAM OBJECT) RTR = REAL-TIME RECORDING OTHER DIRECTORIES VIDEO_TS (VIDEO TITLE SET) AUDIO_TS (AUDIO TITLE SET) SUBDIRECTORY FOR OTHER FILES SAVING COMPUTER DATA

FIG. 35

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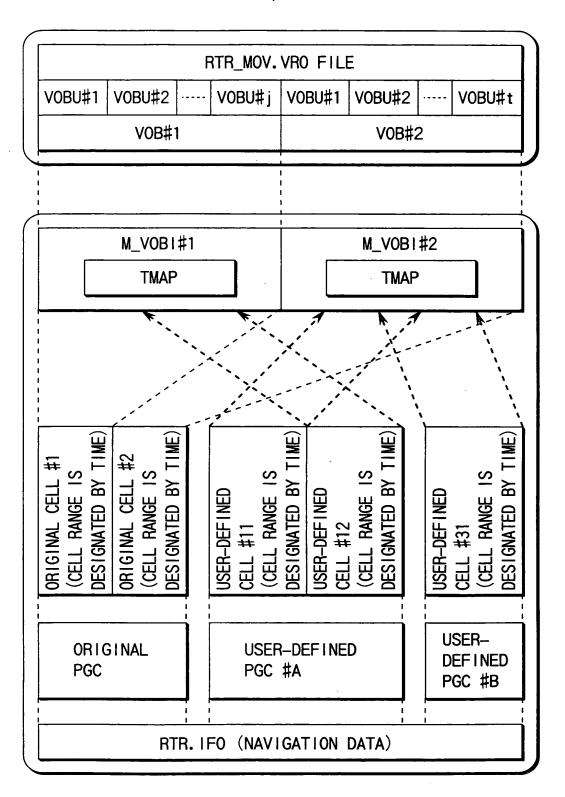


FIG. 36

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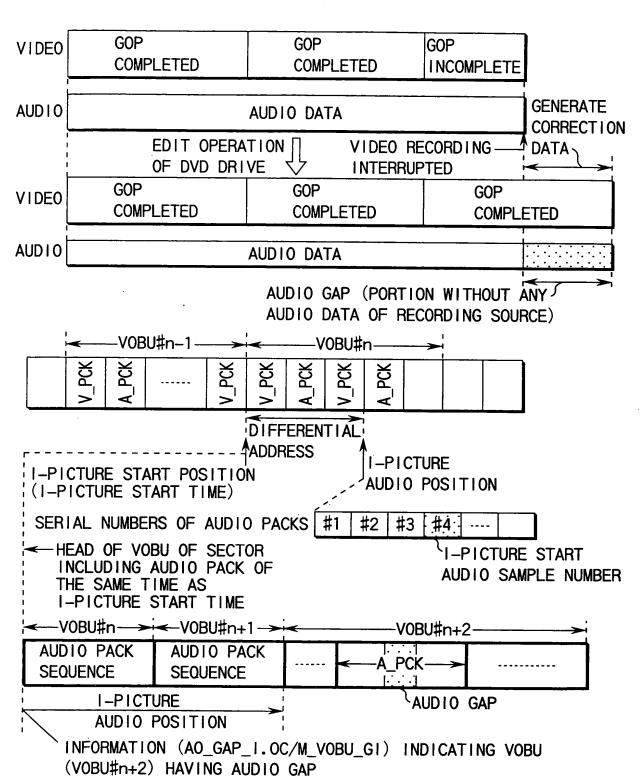


FIG. 37